

What is claimed is:

1. A cooling circuit through which coolant flows, for use with a refrigerated cabinet, comprising:

a compressor;

a condenser, wherein a first flow path extends between said compressor and said condenser;

an evaporator, wherein a second flow path extends between said condenser and said evaporator;

a suction accumulator, wherein a third flow path extends between said evaporator and said suction accumulator and wherein a fourth flow path extends between said suction accumulator and said compressor;

a coolant bypass that extends between said second flow path and said third flow path, wherein said coolant bypass comprises a fifth flow path and a flow control valve; and

a switch that switches the cooling circuit between a cycling mode and a non-cycling mode.

2. The cooling circuit according to claim 1, further comprising:

a first expansion device disposed on said second pathway; and

a second expansion device disposed said fifth pathway.

3. The cooling circuit according to claim 1, further comprising:

a temperature sensor operable to sense a temperature at a certain location of the cooling circuit; and

a control operable to control flow of coolant through the cooling circuit and through said coolant bypass in response to the temperature sensed by said sensor.

4. The cooling circuit according to claim 1, wherein said first, second, third, fourth and fifth flow paths are refrigeration conduits.

5. The cooling circuit according to claim 4, wherein said refrigeration conduits are copper and/or stainless steel.

6. The cooling circuit according to claim 1, wherein said flow control valve is a solenoid valve.

7. The cooling circuit according to claim 1, wherein said first and said second expansion devices are a metering device and/or a pressure reducing valve.

8. The cooling circuit according to claim 7, wherein said metering device and pressure reducing valve include a thermal expansion valve, a capillary tube and/or a needle valve.

9. The cooling circuit according to claim 1, wherein said condenser is a water cooled condenser and/or an air cooled condenser.

10. The cooling circuit according to claim 1, wherein said evaporator is a static cold wall evaporator and/or a forced air evaporator.

11. A cooling circuit through which coolant flows, for use with a refrigerated cabinet, comprising:

a compressor;

a condenser, wherein a first flow path extends between said compressor and said condenser;

an evaporator, wherein a second flow path extends between said condenser and said evaporator;

a suction accumulator, wherein a third flow path extends between said evaporator and said suction accumulator and wherein a fourth flow path extends between said suction accumulator and said compressor;

a coolant bypass that extends between said first flow path and said second flow path, wherein said coolant bypass comprises a fifth flow path and a flow control valve; and

a switch that switches the cooling circuit between a cycling mode and a non-cycling mode.

12. The cooling circuit according to claim 11, further comprising:

a first expansion device disposed on said second pathway; and

a second expansion device disposed said fifth pathway.

13. The cooling circuit according to claim 11, further comprising:

a temperature sensor operable to sense a temperature at a certain location of the cooling circuit; and

a control operable to control flow of coolant through the cooling circuit and through said coolant bypass in response to the temperature sensed by said sensor.

14. The cooling circuit according to claim 11, wherein said first, second, third, fourth and fifth flow paths are refrigeration conduits.

15. The cooling circuit according to claim 14, wherein said refrigeration conduits are copper and/or stainless steel.

16. The cooling circuit according to claim 11, wherein said flow control valve is a solenoid valve.

17. The cooling circuit according to claim 11, wherein said first and said second expansion devices are a metering device and/or a pressure reducing valve.

18. The cooling circuit according to claim 17, wherein said metering device and pressure reducing valve include a thermal expansion valve, a capillary tube and/or a needle valve.

19. The cooling circuit according to claim 11, wherein said condenser is a water cooled condenser and/or an air cooled condenser.

20. The cooling circuit according to claim 11, wherein said evaporator is a static cold wall evaporator and/or a forced air evaporator.

21. A method for cooling a refrigerated cabinet, comprising:  
providing a cooling circuit through which coolant flows, comprising: a compressor; a condenser, wherein a first flow path extends between said compressor and said condenser; an evaporator, wherein a second flow path extends between said condenser and said evaporator; a suction accumulator, wherein a third flow path extends between said evaporator and said suction accumulator and wherein a fourth flow path extends between said suction accumulator and said compressor; a coolant bypass that extends between said second flow path and said first flow path, wherein said coolant bypass comprises a fifth flow path and a flow control valve; and a switch that switches the cooling circuit between a cycling mode and a non-cycling mode;  
selecting a desired air temperature for the refrigerated cabinet; and

selecting an operating mode from the cycling mode and the non-cycling mode using the switch.

22. The method according to claim 21, further comprising the step of running the cooling circuit in the non-cycling mode when a more stable air temperature is desired.

23. The method according to claim 21, further comprising the step of running step of running the cooling circuit in the cycling mode when energy conservation is desired.

24. A cooling circuit through which coolant flows, for use with a refrigerated cabinet, comprising:

means for providing a cooling circuit through which coolant flows, comprising: a compressor; a condenser, wherein a first flow path extends between a said compressor and said condenser; an evaporator, wherein a second flow path extends between said condenser and said evaporator; a suction accumulator, wherein a third flow path extends between said evaporator and said suction accumulator and wherein a fourth flow path extends between said suction accumulator and said compressor; a coolant bypass that extends between said second flow path and said first flow path, wherein said coolant bypass comprises a fifth flow path and a flow control valve; and a switch that switches the cooling circuit between a cycling mode and a non-cycling mode;

means for selecting a desired air temperature for the refrigerated cabinet; and

means for selecting an operating mode from the cycling mode and the continuous mode using the switch.